

From glowbugs@theporch.com Wed Oct 30 10:02:11 1996
Return-Path: <glowbugs@theporch.com>
Received: from uro (localhost.theporch.com [127.0.0.1]) by uro.theporch.com
(8.8.2/AUX-3.1.1) with SMTP id JAA12107; Wed, 30 Oct 1996 09:38:30 -0600 (CST)
Date: Wed, 30 Oct 1996 09:38:30 -0600 (CST)
Message-Id: <9610301537.AA13453@beans.lexis-nexis.com>
Errors-To: conard@tntech.campus.mci.net
Reply-To: glowbugs@theporch.com
Originator: glowbugs@theporch.com
Sender: glowbugs@theporch.com
Precedence: bulk
From: glowbugs@theporch.com
To: Multiple recipients of list <glowbugs@theporch.com>
Subject: GLOWBUGS digest 336
X-Listprocessor-Version: 6.0c -- ListProcessor by Anastasios Kotsikonas
X-Comment: Please send list server requests to listproc@theporch.com
Status: 0

GLOWBUGS Digest 336

Topics covered in this issue include:

- 1) Re: regen report and thoughts on tube filament voltages
by rdkeys@csemail.cropsci.ncsu.edu
- 2) Re: Pinouts on type 30 tubes?
by Bob Roehrig <broehrig@admin.aurora.edu>
- 3) Re: regen report and thoughts on tube filament voltages
by Roy Morgan <morgan@speckle.ncsl.nist.gov>
- 4) Re: Online Schematics
by "Barry L. Ornitz" <u856010@eastman.com>
- 5) Death of an idea
by Gordon Gekko <gekko@nwlinc.com>
- 6) re: Electric Radio Magazine...
by bhopkins@polarnet.com (Bruce Hopkins - KL7JAF)
- 7) Re: Death of an idea
by Gordon Gekko <gekko@nwlinc.com>
- 8) regen audio amplifier funzies
by rdkeys@csemail.cropsci.ncsu.edu
- 9) Re: Death of an idea
by "Brian Carling" <bry@mnsinc.com>
- 10) Re: Death of an idea
by Bruce Robertson <brucero@chass.utoronto.ca>
- 11) Re: Death of an idea
by "Brian Carling" <bry@mnsinc.com>
- 12) Re: regen report and ect...
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 13) Re: Death of an idea
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>

- 14) Re: regen report and ect...
by jefffd@coriolis.com (Jeff Duntemann)
- 15) Re: Death of an idea
by Bob Roehrig <broehrig@admin.aurora.edu>
- 16) Re: Death of an idea
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 17) Do most people accept your fondness for tubes?
by "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
- 18) Xformer rebuild questions and hazardous duty
by Guy Dragoo <gdrag@proedge.com>
- 19) Re: regen report and thoughts on tube filament voltages
by rdkeys@csemail.cropsci.ncsu.edu
- 20) Curling Up With A Good Read
by jkh@lexis-nexis.com (John Heck)

Date: Tue, 29 Oct 1996 11:53:14 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: conard@tntech.campus.mci.net (Conard Murray)
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: regen report and thoughts on tube filament voltages
Message-ID: <9610291653.AA106762@csemail.cropsci.ncsu.edu>

> My original throttle condenser was only 40 uuf. You can see why I was having
> problems! I replaced it with a 200 uuf straight-line frequency condenser. I
> also replaced my antenna coupling condenser. I was using a twisted pair of
> wires, but I put in a 5-40 uuf trimmer and got much better sensitivity with
> 10 uuf or so in the circuit. Also got a lesson in an overloaded detector
> too! Getting your first regen to work is really a feat, but once you get it
> working then you can really tinker. I can see why you like everything
> variable too.

Now you can see the value of LOOSE coupling into the detector circuit.
It reduces overloading on strong signals.

The gimmick capacitor coupling probably was only about 3-4 pf, and may
have been a bit marginal. The trimmer works well, in most instances for
direct coupling, and allows you the means of varying the coupling at will.

It is probably the best of all possible worlds to build a series tuned
coil-capacitor network as the primary of the coil system, and use that
sharply tuned to match the antenna (for a normal sized antenna of a 1/4
wave or so). But very loose coupling will be required there, to keep
from overloading the detector. The commercial receivers were done that
way. They used variable inductive coupling between primary and secondary
circuits and that gave the advantage of additional selectivity and tuning
of the antenna circuits to resonance.

Yes, regen sets are great tinker toys!

```
> With the 40 uuf tuning condenser I am able to cover the whole 80M and 160M
> bands. If I ever build a regen for 40 or higher, it will surely have a much
> smaller tuning condenser! I wonder just how high I can push this old 26?
```

Traditionally, bandspreading was done with a single plate tuning condenser. Only later in the late 30's and 40's were folks using bandsetting and bandspreading capacitors together. Usual 20's practice was to cut plates. With the usual coils wound for 160/80/40M, a single plate will be all that is needed to cover the bands well. On 160, it should cover the lower 50-100 khz. On 80 it should cover the lower 250khz. On 40 it should cover the entire band. I find that more than one plate makes the tuning too quick. Since I use the things mostly for CW reception (although they work very well on ssb and fair to good on am), the narrower bandspread is better for me. It is usual to take a small single plate variable or find a 5 or 10 plate variariable if nothing else is around and pull the plates off the rotor shaft with careful disassembly or as a last resort with a pair of needle nose pliers. Be careful not to bend any remaining plates so they short.

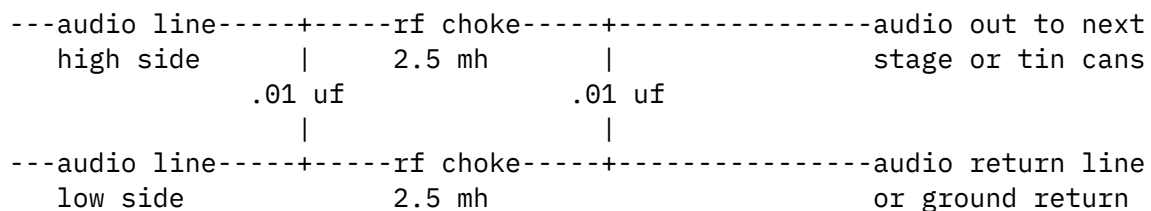
My guess is that it should go up to 20 meters or so, reliably, although it will be difficult to tune stably on anything above about 10 mhz. Even 40 meters gets a tad touchy sometimes, under crowded band conditions. Regenerators really come into their own on 80/160 meters. If you take care and use more modern tubes and smaller sized components, it is possible to build a regenerator that will go up to 6 meters well. But, using older parts and tubes, I don't get good results at much above 30 meters, unless some careful design and construction has been done. The RCA RAL receiver, which I use as the base standard for regens, does very well up through 20 meters, although the bandspreading is a bit of a problem there. Above 20 meters it can be rather touchy to operate as a main receiver. As a novice, I used it on 15 meters, but it was always with some tongue-in-cheek. It had plenty of sensitivity, and the stability was pretty good, but the novice band was about 5 of the 1000 dial divisions. Sneeze and you went way out of the band and lost your QSO.

```
> I played around with my detector voltage this evening and didn't notice much
> difference beyond needing more feedback and less sensitivity at lower
> voltages. I was able to copy signals with 16 volts, but 24 to 36 volts works
> better. No problem copying standard stuff on a 36 inch clip lead antenna. I
> am still using a pile of 9-volt batteries for the B supply as I got enough
> free batteries to run this rx for a couple of years. (Seems the hospital
> here changes the batteries in their stuff on a weekly basis and I have a
> friend that gets to cart off all the used batteries.) Throttle action is
> pretty smooth and the set is a joy to operate. I do still have some loose RF
> floating around on the headset wires though, but it isn't too bad. My RF
> choke is a 4-pie 2.5 mH job, so I must have a lousy layout.
```

Plate voltages can vary considerably. I can get a detector to work well on 6vdc plate, if I am careful, although the sensitivity is quite low. On 12vdc, it works pretty well, but for practical use, requires two stages or maybe 3 for sufficient amplification to headfone volume. When using two stages only, I find that 24-48 volts plate works well, with usually around 36 volts best on triodes. 24 volts is a good comfy minimum. Not much difference is apparent when going from 36 to 48 volts on my sets. On a single tuber, 48 volts is usually best, and provides some additional gain for headfone volume. Beyond 48 volts is not usually needed on triodes. For pentodes or tetrodes, the detector oscillator circuit should remain on about 24-36 volts, but the plate circuit can be boosted to 90 volts or so or beyond. I get scared of regen detectors that are NOT coupled via transformer to the tin cans at any voltages above 90 volts. Even capacitor coupling above 90 volts is a bit dangerous, if the capacitor should short for any reason. Also, running more than 90 volts through tin can windings is bad on their longevity, I have found. Several pairs of mine have gone bad when I was an unknowing novice and put more than 90 volts through them, thinking i could get a little more oomph out of them....wrongoo.....

I will have to look into that hospital battery supply route. It sounds interesting..... a never ending source of plate batteries.....(:+}}.....

For loose RF, you might try a double choke filter like so:



the bottom line can be grounded if the audio return is grounded and one rf choke eliminated. IF the line is floating into the next stage, then use the lower one also. All this is outside the throttle condenser and its own rf choke if a one tube detector stage only is used. On a two tuber, put this in the audio output from the second tube.

If the audio return line is grounded (as in capacitor coupled output to tin cans or transformer coupled output to tin cans), then it may help to put a thin sheet of aluminum behind the front panel (even tin foil will do) grounding the sheet to the low side of the tuning capacitor and to the dial mechanism. That will cut down stray hand capacity tremendously.

> I think I will try it on the air tomorrow night. I will also see if I can
> lash up a 6AG7 xtal breaker built up on wood strips. This glowbugging sure
> is fun! Thanks for sharing your expertise...

Glowbugging is addictive to the ham psyche. It presents some unusual challenges.

I hope to get some more time to get back on the air. I have been heavy into chasing some grants and doing some of the occasional teaching that I get hooked into. Perhaps I will get time to fire up the regen and the hartley tonight. That would make my day!

There was some concern amongst glowbuggites that reduced filament voltages might do harm to 70 year old tubes. That set me to digging in the books. I am planning some experiments using filamentary triodes in regen detector application to measure the tube parameters in such service. Although it is wise to run things like '01A's at 5 volts in usual service, I am still of the opinion that running them at reduced filament voltages and currents in detector or low level audio service does them no harm. The pair I have been running for some 10 years and maybe 1000 hours at reduced voltages are working fine, and they were well used when I got them. In consulting the major tube books (van der Bijl, Chaffee, Spangenberg, Gewartowski and Watson, and Rosebury) only one suggested running thoriated tungsten filaments at reduced temperatures would have an effect on their longevity. Data from Jones and Langmuir, as illustrated in Spangenberg (Fig 4.10) would be suggestive of a reduction in filament current significantly increasing the life of the filament, logarithmically. The trick is to find the reduced filament operating point that will be compatible with the required emission levels for the plate currents used in the regenerative detector and low level audio service. Spangenberg (Fig 4.11) presents data that a thoriated tungsten filament has good emission down to a temperature of 1500 degrees Kelvin, even though normal operation is at 1900 degrees Kelvin. That is significantly lower than what 5 volts would generate on the '01A filament. Langmuir's data suggests that even at as low a temperature as 1400 degrees Kelvin, the emission is only reduced to about 1 percent of the value at 1900 degrees Kelvin. Interestingly, data from Wien and Harms (Handbook of Experimental Physics) indicates that the life of the thorium on the filament surface is increased from 94,000 hours to 720,000 hours by the simple reduction in filament temperature from 1900 degrees Kelvin to 1800 degrees Kelvin. If we wish to conserve our 70 year old tubes, then there is some value and wisdom in running them at reduced voltages, that are appropriate for the type of service to which we are putting the tubes. How much reduction in filament voltage is still open to discussion. The plate current in detector service is approximately 1/10th that of audio amplifier service at 135 volts. Thus the required emission for satisfactory service is 1/10th that for which the tube '01A is rated. That emission can be obtained at a 1650 degree Kelvin temperature. What I have yet to find out is at what filament voltage do I get a 1650 degree Kelvin filament temperature. Anyone know? All the books I have found to date don't have a table or chart with that data shown. Perhaps I need to go look up Jones and Langmuir's work.

> 73 and ZUT!
> de Conard ws4s
> Conard Murray WS4S NNNOUTN Glowbugs Listowner
> 217 Dyer Avenue BA/GB net 1802.5/3579.5/7050 KHz
> Cookeville, Tn 38501 conard@tntech.campus.mci.net
> 615-526-4093 Wise men still seek Him
> - LICENSED ONLY TO EXTENT INDICATED ON CARTON -

The above is licensed only to the extent indicated on carton....(what carton?)

73/ZUT DE NA4G/Bob UP

Date: Tue, 29 Oct 1996 10:51:51 -0600 (CST)
From: Bob Roehrig <broehrig@admin.aurora.edu>
To: Art Winterbauer <art@comet.ucar.edu>
Cc: Multiple recipients of list <glowbugs@theporch.com>
Subject: Re: Pinouts on type 30 tubes?
Message-ID: <Pine.ULT.3.95.961029104703.10754D-100000@admin.aurora.edu>

On Tue, 29 Oct 1996, Art Winterbauer wrote:

> Does anyone know the pinouts on a type 30 tube? The bottom of the tube looks
> like this:

>	4	1
>	0	0
>		
>	0	0
>	3	2

> The big 0s show continuity with an ohm-meter, so I figured that's the directly
> heated cathode. But of the lower pins, which is the grid and which the plate?

The most clockwise large pin is always pin 1. Count clockwise from there
as I've shown on your drawing above.

This is true for any tube base like this that doesn't have a keyway,
up thru the 7 pin jobs. usually the larger 2 pins are filament.

Pins 1 and 4 are filament, 2 is plate, and 3 is grid. Many of the older
jobs have this same pinout ('01A, 2A3, 10, 12 for example.)

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL

Date: Tue, 29 Oct 1996 12:30:24 -0500
From: Roy Morgan <morgan@speckle.ncsl.nist.gov>
To: glowbugs@theporch.com
Subject: Re: regen report and thoughts on tube filament voltages
Message-ID: <9610291730.AA24817@speckle.ncsl.nist.gov>

At 10:28 AM 10/29/96 -0600, you wrote:

In consulting
>the major tube books ... running thoriated tungsten filaments
>at reduced temperatures would have an effect on their longevity.

Do we know WHICH tubes we use have thoriated tungsten filaments and which do not!!!!??? Are there some tube numbers which were produced with some batches with and some without?

Info I have indicates the UV199 has a thoriated filament and the UX199 does not (and different base connections, too, by the way.)

... the life of the thorium
>on the filament surface is increased from 94,000 hours to 720,000 hours by
>the simple reduction in filament temperature from 1900 degrees Kelvin to
>1800 degrees Kelvin.

The RCA Transmitting Tube Manual tells something about how to handle larger tubes with thoriated tungsten filaments: in summary, run the tube at rated filament power and watch it's output, then lower the filament power till performance begins to degrade, then increase the filament power slightly. This, of course is in a situation where there's a 24-hour operating engineer in attendance and where there are enough monitoring instruments to do the job.

>What I have yet to find out is at what filament voltage do I get a
>1650 degree Kelvin filament temperature. Anyone know?

For this you need an optical pyrometer. Investigations await time and opportunity.

Sooo many projects, sooooo little time!

-- Roy Morgan/Building 820, Room 562/Gaithersburg MD 20899
(National Institute of Standards and Technology, formerly NBS)
301-975-3254 Fax: 301-948-6213 morgan@speckle.ncsl.nist.gov --

Date: Tue, 29 Oct 1996 12:41:49 -0500 (EST)
From: "Barry L. Ornitz" <u856010@eastman.com>
To: Gordon Gekko <gekko@nwlk.com>, Conard Murray <cfm@tntech.edu>,
Cc: Glowbugs Mailing List <glowbugs@theporch.com>,
Subject: Re: Online Schematics
Message-ID: <Pine.ULT.3.91.961029115331.7446B-100000@dua150.kpt.emn.com>

Sorry to rain on the parade folks, but Gordon Gekko's call on the Glowbugs Mailing List for schematics to scan and post on an online service needs to be rethought with intellectual property rights considered. Gordon wrote:

> I am ACTIVELY PROMOTING submission of printed schematics to be scanned
> and made available to everyone in this group.

followed by:

> Include entire article if desired. I will only scan the parts list and
> schematic itself, but I will file the rest if some one has questions.

I am no attorney, but I can say with certainty that this violates U.S. and International copyright law. [I have been researching this subject to write a FAQ on it for Boatanchors, Glowbugs, VSS and the new Usenet rec.radio.amateur.boatanchors.]

If those original articles were copyrighted, it will be necessary to have written permission on each before they, or even just their schematics, can be duplicated. If authors wish to contribute their own original designs, this is fine. But if you scan in a schematic from QST, you will likely find the League will object. Just because the article does not carry a copyright notice does not mean that it is in the public domain and fair game for scanning either.

I am sure there are those who would call me a "spoil sport" for bringing this issue up, but in reality I would like to keep Glowbugs prospering and Phil Porch away from any legal hassles that would cause him to shut down this list. [Note to Conard: Jack Hill and I have already discussed this briefly. He is waiting on the draft copy of the FAQ I am writing.]

Before we have dozens of "seat of the pants lawyers" comment on this, I suggest everyone do a web search of the various articles on copyrights and intellectual property rights first and READ THEM. As I said before, I am no attorney - but I do work in R&D and, of necessity, I am very familiar with patents, copyrights, and trademarks. The more I studied the copyright law, the more I realized how strict it really is.

[The FAQ I am writing is going slowly - it may be several more weeks before it is finished.]

As a final point to consider, look at the various compilations of schematics published by Markus over the years. Imagine - a book composed of nothing but thousands of schematics and parts lists. But Markus had to have written permission on file from the original copyright holder for EACH and EVERY schematic he re-published.

73, Barry L. Ornitz WA4VZQ ornitz@eastman.com

Date: Tue, 29 Oct 1996 10:10:33 -0800 (PST)
From: Gordon Gekko <gekko@nwlink.com>
To: glowbugs@theporch.com
Subject: Death of an idea
Message-ID: <199610291810.KAA13851@montana.nwlink.com>

>I am no attorney, but I can say with certainty that this violates U.S. and
>International copyright law. [I have been researching this subject to
>write a FAQ on it for Boatanchors, Glowbugs, VSS and the new Usenet
>rec.radio.amateur.boatanchors.]
>
>If those original articles were copyrighted, it will be necessary to have
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>be duplicated. If authors wish to contribute their own original designs,
>this is fine. But if you scan in a schematic from QST, you will likely
>find the League will object. Just because the article does not carry a
>copyright notice does not mean that it is in the public domain and fair
>game for scanning either.
>
>I am sure there are those who would call me a "spoil sport" for bringing
>this issue up

Ok, ya got me. So much for that idea.

Dave

gekko@nwlink.com

Date: Tue, 29 Oct 1996 09:23:51 -0800

From: bhopkins@polarnet.com (Bruce Hopkins - KL7JAF)
To: glowbugs@theporch.com
Subject: re: Electric Radio Magazine...
Message-ID: <v01540b00ae9beac8ddad@[204.119.24.196]>

Hi Gang...

Ditto to Jeff - KG7JF's post about the Electric Radio Magazine... Two things things to note: 1. Your subscription allows you one 20 word add in the magazine each month without charge... 2. If you send a request they will send you a sample copy of the magazine...

This is a very nicely done magazine... If you like tube gear and vintage gear, this is a must have... From my sample issue my wife Lin - WL7BHT was able to do a big part of her Christmas shopping... Under our Christmas tree this year will be a WRL Globe Chief Deluxe and a Hallicrafters S-38C, my original 1960 Novice (KN8WEF) station... Now that's worth the price of a subscription!!!

ELECTRIC RADIO MAGAZINE
Barry Wiseman N6CSW
14643 County Road G
Cortez CO 81321-9575
970-564-9185
er@frontier.net

Take care and have fun gang... Keep-em-Glowing...

72/73/oo's - Bruce * KL7JAF

EMPS QS0s=7 STATES(w/c)=1/0 DX=0
AK

Web Page: <http://www2.polarnet.com/~bhopkins>

Alaska QRP Club Web Page: <http://www2.polarnet.com/~bhopkins/akqrp.html>

Date: Tue, 29 Oct 1996 11:11:13 -0800 (PST)
From: Gordon Gekko <gekko@nwlink.com>
To: glowbugs@theporch.com
Subject: Re: Death of an idea
Message-ID: <199610291911.LAA24950@montana.nwlink.com>

At 12:50 PM 10/29/96 -0600, you wrote:
>At 12:11 PM 10/29/96 -0600, you wrote:
>
>Hey Dave,
>Don't give up so quick. There is a bunch of information you can archive. We
>just have to be careful what you do archive.
>73 de Conard, ws4s
>

I'm sure something can be worked out. Maybe only original designs or modifications of published ones, or something.

I just don't want to go afoul of the legal side of things. You can bet there are those lurking who would in fact report such activity, and it just didn't occur to me that is is not legal to scan and distribute copyrighted material.

I would still love to archive info - lets maybe start a forum on just what is available, and what could be posted.

Dave
gekko@nwlink.com

Date: Tue, 29 Oct 1996 14:52:02 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: glowbugs@theporch.com
Cc: rdkeys@csemail.cropsci.ncsu.edu ()
Subject: regen audio amplifier funzies
Message-ID: <9610291952.AA106815@csemail.cropsci.ncsu.edu>

Last night I had to give my usual song and dance on amplifiers to a local

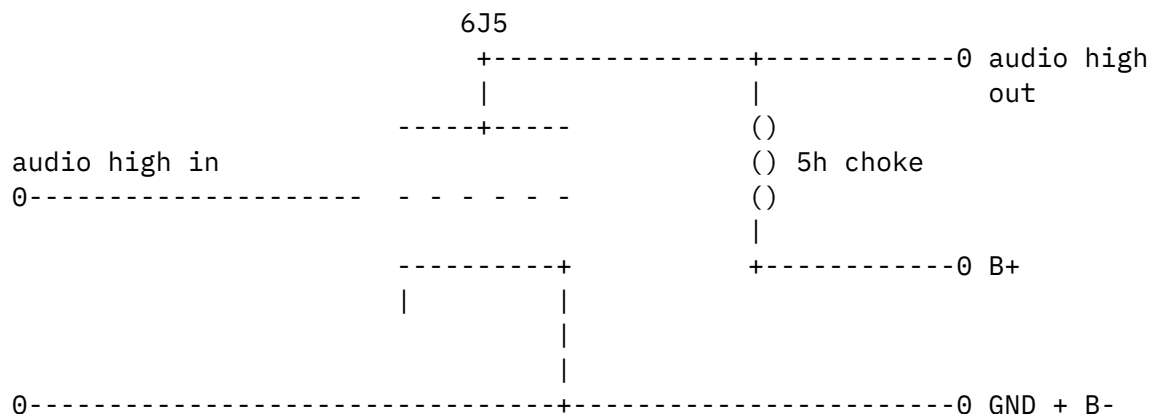
ham radio class that our club teaches. I use a simple breadboard (actually luciteplasticboard) 1 tube amplifier as a teaching aid. While checking it out for the song and dance, I played around with the circuit a tad and measured some voltages. I found out some interesting things relating to very low plate voltage audio service of a common 6J5 tube. It generates some questions that might be useful for us glowbuggites to ponder or test out for optimizing the regenerator on low voltages.....

Particulars:

Input - a 600 ohm line transformer speaker (LS-144 army speaker) driven by a small phone tone generator oscillator at about 440 hz via a 1 inch speaker. This gave a headphone volume audio tone to feed into the loudspeaker used as a microphone to the amplifier. The speaker is 8 ohm with a built-in 600 ohm line transformer.

Output - a 1 inch cube size 5 h choke (small surplus thing stripped from a TRC system of Vietnam era vhf use. Basically a 5 h output load rated at 0 milliamps current, used for microphone/line coupling.

Tube - common 6J5 with no biasing --- input goes to grid and ground, output comes from plate to ground across the 5 henry load impedance, cathode to ground --- about as simple as it gets - lets test the simple first.



Filament voltage - 6.3 volts ac.

Plate voltage - 12vdc from a small 7ah battery.

Input voltage across the grid to ground - 0.1 vac max (basically a slight meter wiggle from an AC vom.

Output voltage across the 5 h load impedance - 4.0 vac.

Voltage gain - 40 (did not measure plate current, probably 1 ma or so).

Notes: a) adding more voltage to the plate up to 24, 36, 48 did not increase output ac voltage appreciably. Did not measure current. Need to do that. The voltage gain came up from 0 to 12 volts to peak, and did not go up from there as the plate voltage increased.

b) sufficient output was obtained to drive a second LS-144 as an output speaker to strong headphone volume, and weak but hearable speaker volume. I need to check this with capacitor coupling to the speaker and to Hi-Z fones for comparison. Need to test this for various values of coupling capacitance to maximize audio tone passing at about 800hz or so for tuned peaked audio output.

c) Need to measure load currents with various output impedances and transformers to see which works best for headfone output typical for regen receiver use.

Comments: Small plate voltages on triodes work better than expected if the load is properly coupled to the output device. Impedance coupling of the regen audio stage looks like a pretty good option.

Also, tube can replace transistors at low signal levels using low plate voltages...(:+}}.

This sounds like someting from a 40's era electronics lab, right? Maybe fun to do, and helpful in optimizing regenerator parameters for our fine glowbugs.

73/ZUT DE NA4G/Bob UP

Date: Tue, 29 Oct 1996 13:01:17 +0000
From: "Brian Carling" <bry@mnsinc.com>
To: Gordon Gekko <gekko@nwlink.com>, gekko@nwlink.com, glowbugs@theporch.com
Subject: Re: Death of an idea
Message-ID: <199610291958.0AA00822@user2.mnsinc.com>

Well guys I don't think he can go wrong with scans of hand-drawn schematics, ESPECIALLY since he doesn't plan to sell them or to distribute them outside of a small circle of non-commercial hobbyists who are not doing anything for profit.

I know also that the world is just not exactly sweating it over the commercialization of technical ideas that went by the wayside 30-50 years ago! There is no exchange of money involved, just thoughts. Is sharing thoughts on the design of a QRP tube exciter somehow taking away someone's livelihood who is in the business of mass marketing such radios?

If so, I WANT TO BUY ONE OF THEM! <grin!>

72.5 to all - de "G3XLQ"
73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA
bry@mnsinc.com
*** See the great ham radio resources at:
<http://www.mnsinc.com/bry/>

Date: Tue, 29 Oct 1996 15:23:26 -0500 (EST)
From: Bruce Robertson <brucerob@chass.utoronto.ca>
To: Gordon Gekko <gekko@nwlinc.com>
Subject: Re: Death of an idea
Message-ID: <Pine.SGI.3.95.961029151935.10980A-100000@chass.utoronto.ca>

On Tue, 29 Oct 1996, Gordon Gekko wrote:

> At 12:50 PM 10/29/96 -0600, you wrote:
> >At 12:11 PM 10/29/96 -0600, you wrote:
>
> I would still love to archive info - lets maybe start a forum on just
> what is available, and what could be posted.

This seems like Yet Another Oportunity to mention the Glowbug
Bibliography:

<http://www.epas.utoronto.ca:8080/~brucerob/glowbugs/glowbugs_bib.html>

Yours,

Bruce G. Robertson Dept. of Classics, U. of T.

Date: Tue, 29 Oct 1996 14:37:47 +0000
From: "Brian Carling" <bry@mnsinc.com>
To: brucerob@chass.utoronto.ca, glowbugs@theporch.com
Subject: Re: Death of an idea

Message-ID: <199610292134.QAA09954@user2.mnsinc.com>

HEY! It's a reply from AF4K!

GREAT! - First I had heard of it!
Thanks for posting - Bry, G3XLQ/W4

On 29 Oct 96, Bruce Robertson wrote:

> On Tue, 29 Oct 1996, Gordon Gekko wrote:
>
> > At 12:50 PM 10/29/96 -0600, you wrote:
> > >At 12:11 PM 10/29/96 -0600, you wrote:
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> This seems like Yet Another Oportunity to mention the Glowbug
> Bibliography:
>
> <[http://www.epas.utoronto.ca:8080/~brucerob/glowbugs/glowbugs_bib.ht](http://www.epas.utoronto.ca:8080/~brucerob/glowbugs/glowbugs_bib.html)
> ml>
>
> Yours,
>
> Bruce G. Robertson Dept. of Classics, U. of T.
>
>
73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA
bry@mnsinc.com
*** See the great ham radio resources at:
<http://www.mnsinc.com/bry/>

Date: Tue, 29 Oct 1996 16:46:16 -0600
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: rdkeys@csemail.cropsci.ncsu.edu
Cc: glowbugs@theporch.com
Subject: Re: regen report and ect...
Message-ID: <1.5.4.32.19961029224616.006c0600@postoffice.worldnet.att.net>

All regen reading gets me to thinking I need to build another sometime soon. Last regen I played with was in the early 70's as a teen before I got my first ham license. There was this box of parts I was given called an Electronic Set. Mid 30's to 40's era version of the Rat Shack 150 in one kits. Had several recievers and one transmitter circuit you could build. As I remember right this thing used a battery tube or maybe 2 tubes. Set used a

wood board with many holes drilled in it. Parts were mounted on yellow plastic bases with a pin sticking up on each end. The wires had these U shaped connectors on them. Came with a book for building each type of set. I put either one or two (don't remember) D cell batteries in one of the holders and and wired together a pair of 22.5 volt batteries for the B supply. I had fun playing around with the grid leak detector but the regen was best! Thankfully that set had a coil for shortwave as well as the regular AM band. Thats how I discovered shortwave listening was that old Electronic Set. If only I had kept it. Anybody have a fully intact one they could pass along? Or perhaps tell me when and who made it? Right now I'm looking through my old Radiocraft magazines and the late 30's through 50's era ARRL handbooks I have for a really good one or two tube regen set to build!

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

I like old radio's too.

Collins, Hallicrafters, National & Hammurand are my Favorites!

Date: Tue, 29 Oct 1996 17:31:37 -0600

From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>

To: bry@mnsinc.com

Cc: glowbugs@theporch.com

Subject: Re: Death of an idea

Message-ID: <1.5.4.32.19961029233137.006ade14@postoffice.worldnet.att.net>

At 07:59 PM 10/29/96 +0000, you wrote:

>Well guys I don't think he can go wrong with scans of hand-drawn
>schematics, ESPECIALLY since he doesn't plan to sell them or to
>distribute them outside of a small circle of non-commercial hobbyists
>who are not doing anything for profit.

>

>I know also that the world is just not exactly sweating it over the
>commercialization of technical ideas that went by the wayside 30-50
>years ago! There is no exchange of money involved, just thoughts.
>Is sharing thoughts on the design of a QRP tube exciter somehow
>taking away someone's livelihood who is in the business of mass
>marketing such radios?

>

>If so, I WANT TO BUY ONE OF THEM! <grin!>

>

>72.5 to all - de "G3XLQ"

>73 from Radio AF4K / G3XLQ in Gaithersburg, MD USA

>bry@mnsinc.com

>*** See the great ham radio resources at:
><http://www.mnsinc.com/bry/>
>

I have to agree with this one. Somewhere in copyright law is loopholes for non profit use. Home vidio & audio tapers get away with it all the time. I don't see any alt.binaries.pictures ect posters going to jail either. None of the used record dealers get hassled by the record companies at collectors shows. Yes I can see getting permission BEFORE selling a book full of other peoples scematics but offering scanned copies that aren't sold? Thats overreacting folks!

Robert M. Bratcher Jr.
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Record collector, 8mm, super 8, 16 and 35mm Film collector.
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Date: Tue, 29 Oct 1996 16:56:26 -0700
From: jeffd@coriolis.com (Jeff Duntemann)
To: bratcher@worldnet.att.net
Cc: glowbugs@theporch.com
Subject: Re: regen report and ect...
Message-ID: <1.5.4.32.19961029165244.00eeaac0@ntserver.coriolis.com>

>There was this box of parts I was given called an
>Erectronic Set. Mid 30's to 40's era version of the Rat Shack 150 in one
>kits.

>Anybody have a fully intact one they
>could pass along? Or perhaps tell me when and who made it?

I think it was an A. C. Gilbert product; they of Erector Set fame. I'll look into it (I have a book on them at home) and report back.

--73--

--Jeff Duntemann KG7JF
Scottsdale, Arizona

Date: Tue, 29 Oct 1996 18:14:51 -0600 (CST)

From: Bob Roehrig <broehrig@admin.aurora.edu>
To: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
Cc: Multiple recipients of list <glowbugs@theporch.com>
Subject: Re: Death of an idea
Message-ID: <Pine.ULT.3.95.961029181258.2420E-100000@admin.aurora.edu>

On Tue, 29 Oct 1996, Robert M. Bratcher Jr. wrote:

> I have to agree with this one. Somewhere in copyright law is loopholes for
> non profit use. Home vidio & audio tapers get away with it all the time. I
> don't see any alt.binaries.pictures ect posters going to jail either. None
> of the used record dealers get hassled by the record companies at collectors
> shows. Yes I can see getting permission BEFORE selling a book full of other
> peoples scematics but offering scanned copies that aren't sold? Thats
> overreacting folks!

Well, technically, it is illegal to copy a video tape or to tape a phono-
graph record or CD even though it's done all the time. I think the answer
is - is it for educational purposes? The copyright laws are different
in that case.

E-mail broehrig@admin.aurora.edu 73 de Bob, K9EUI
CIS: Data / Telecom Aurora University, Aurora, IL

Date: Wed, 30 Oct 1996 01:56:07 -0600
From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>
To: Bob Roehrig <broehrig@admin.aurora.edu>
Cc: glowbugs@theporch.com
Subject: Re: Death of an idea
Message-ID: <1.5.4.32.19961030075607.006ac108@postoffice.worldnet.att.net>

At 12:14 AM 10/30/96 +0000, you wrote:

>On Tue, 29 Oct 1996, Robert M. Bratcher Jr. wrote:

>
>> I have to agree with this one. Somewhere in copyright law is loopholes for
>> non profit use. Home vidio & audio tapers get away with it all the time. I
>> don't see any alt.binaries.pictures ect posters going to jail either. None
>> of the used record dealers get hassled by the record companies at collectors
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>Well, technically, it is illegal to copy a video tape or to tape a phono-
>graph record or CD even though it's done all the time. I think the answer
>is - is it for educational purposes? The copyright laws are different

>in that case.

>

If I remember right the educational part states that the video recording must be erased after one week. Where would I check out the copyright law anyway? I want to read the whole thing.

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

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Date: Wed, 30 Oct 1996 02:37:25 -0600

From: "Robert M. Bratcher Jr." <bratcher@worldnet.att.net>

To: glowbugs@theporch.com

Subject: Do most people accept your fondness for tubes?

Message-ID: <1.5.4.32.19961030083725.006b628c@postoffice.worldnet.att.net>

Has anyone not accepted your radio hobby? I've found that 99% of people accept mine just fine. The only one who didn't was an elderly professor of one of the electronics classes I took in college. I had just bought a couple dozen Radiocraft magazines at my local antique radio club the Tuesday night before class the next morning. I brough some to class with me for a little reading before the class started. My professor picked one up after he walked into the room and asked

Whats this for?

I replied "Just my hobby"

His response was "Get with the times Bratcher!" then he put my 40's era magazine down and went to the front to start class.

I've been fiddling with tubes ever since. By the way, that remark of the old professor was in the early 1980's. Didn't bother me a bit!

Robert M. Bratcher Jr.

E-mail to:

bratcher@worldnet.att.net

Record collector, 8mm, super 8, 16 and 35mm Film collector.

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Date: Wed, 30 Oct 1996 08:07:57 -0600
From: Guy Dragoo <gdrag@proedge.com>
To: "'Multiple recipients of list (Boatanchors)'"
Subject: Xformer rebuild questions and hazardous duty
Message-ID: <01BBC639.9C47B040@ft230.computek.net>

Howdy listmembers:

I recently acquired an mike amp for to use the parts (specifically xformer) for a Colpitts tx project (Thanks Alex Mendelsohn for your nicely drawn and detailed schematic...it has been widely viewed and appreciated).

The crux of the problem is that I wanted to check out the unit so I decided to bring'er up slowly on a variac. Well, I learned two things:

1. Check the value of fuses installed in a unit before you fire it up (had a 10 fuse instead of a 2 amp).
2. Stay with the unit and don't go off and play with the kids while bringing it up :-(

Well, I'm sure you all see it coming...At about 90v I walked off to join the wife & kids in frolicking in the living room, at least until I smelled the magic smoke (my wife was not very happy about the smell I introduced to our household). I guess I didn't completely fry the unit cuz I'm still getting voltage out but it crackles when power is applied.

The specific questions I have:

Is the goo that oozed out of the xformer hazardous (seems to have eaten the paint a little) or is it just melted lacquer.

Is this xformer worth rebuilding (360v CT w/ 5v & 6.3v secondaries)? If so, how is this done and what is the procedure recommended for the rebuild?

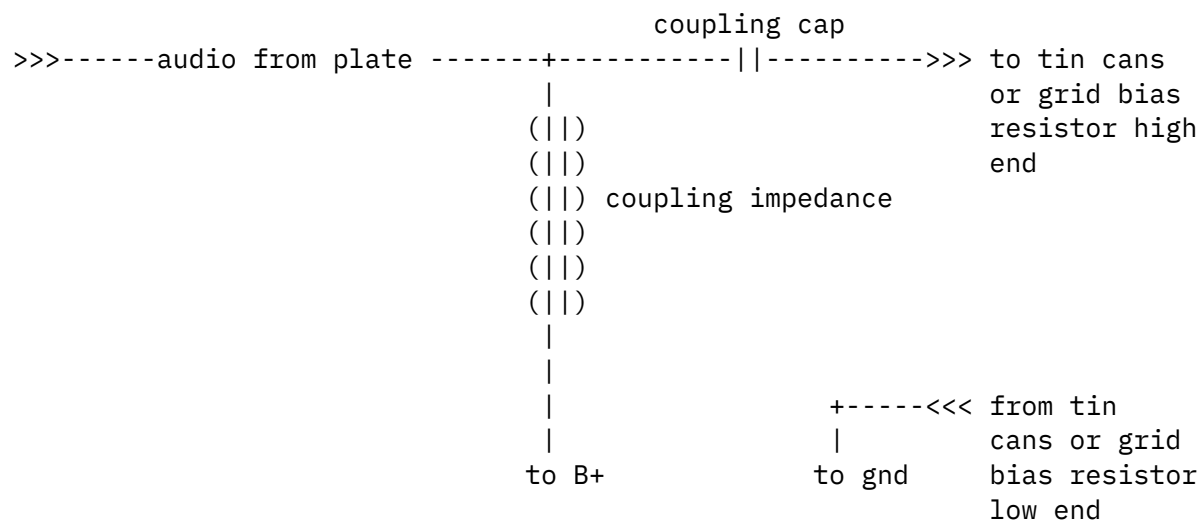
Thanks and 73

Guy AC5HL

Date: Wed, 30 Oct 1996 10:14:00 -0500 (EST)
From: rdkeys@csemail.cropsci.ncsu.edu
To: conard@tntech.campus.mci.net (Conard Murray)
Cc: rdkeys@csemail.cropsci.ncsu.edu (), glowbugs@theporch.com
Subject: Re: regen report and thoughts on tube filament voltages
Message-ID: <9610301514.AA107142@csemail.cropsci.ncsu.edu>

> How do you capacitively (?) couple from the plate of the audio amp to the
> phones? I can't think of a simple way to do it.

The usual way to impedance couple is as follows:



The tube plate circuit goes through the choke to B+, but the audio goes across the coupling cap to the next circuit (tin cans to ground or across the grid biasing resistor of the next [first audio] stage).

The coupling cap can be anything from 0.1uf to 10uf, and you will have to play with this value to get the best match to the following tin cans or audio stage. I find a value of about 1 uf to be good in most instances.

The plate coupling impedance can be anything from about 5 henries to 500 henries (actually all you need is about 10-30 in most instances). I find a value of 10 henries to be good in most instances.

The classical National audio coupling network was a 500 henry choke and a capacitor all in one case. I am not exactly sure of the capacitor value but 0.1 or 1.0 uf rings a bell. The SW-3 and a few other of the small 30's National style regen boxes used this sort of coupling.

This form of impedance coupling works very well with the odd junk box chokes of a few henries value, and the odd junk box 400 or 600v leftover audio bypass tub capacitor of a microfarad or so. The values are entirely non-critical.

73/ZUT DE NA4G/Bob UP

Date: Wed, 30 Oct 96 10:37:16 EST
From: jkh@lexis-nexis.com (John Heck)

To: glowbugs@theporch.com
Subject: Curling Up With A Good Read
Message-ID: <9610301537.AA13453@beans.lexis-nexis.com>

Folks,
Just took delivery on a package from Lindsay Publications and now I can't wait for a chance to curl up with one of these wonderful books. I got copies of Elmer Buchers's "Wireless Experimenter" and his "Vacuum Tubes in Wireless Communication". Also got two of the nice little Gernsback Educational Library reprints, NO. 1 and 2, "How To Build 4 Doerle Short Wave Sets", and "How To Make The Most Popular All Wave 1 and 2 Tube Receivers". The Bucher books were \$13.95 and \$12.95 and the Gernsback books were \$2.25 each. What a bargain! Lindsay is at PO Box 538, Bradley, IL 60915-0538, 815/935-5353, and have a swell catalog. Bob Keys is right, the Buchers books seem like a must read for glowbuggers! Ya' oughta have a catalog.

Regards,
John Heck, KC8ETS
1009 Donson Drive
Dayton, Ohio 45429
(513)865-7036(work)
jkh@lexis-nexis.com

End of GLOWBUGS Digest 336
